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J. Bond
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Ariel Hendel et al.

Serial No. 08/813,647

Filed: March 7, 1997

For: **METHOD AND APPARATUS FOR
PARALLEL TRUNKING OF INTERFACES
TO INCREASE TRANSFER BANDWIDTH**

Examiner: Thong Vu

Art Unit: 2756

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APPEAL BRIEF

Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

ATTENTION: Board of Patent Appeals and Interferences

Dear Sir:

Applicant submits, in triplicate, the following Appeal Brief pursuant to 37 C.F.R. § 1.192 for consideration by the Board of Patent Appeals and Interferences. Applicant also submits herewith a check in the amount of \$320.00 to cover the cost of filing the opening brief as required by 37 C.F.R. § 1.17(c). Please charge any additional amount due or credit any overpayment to deposit Account No. 02-2666.

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I. REAL PARTY IN INTEREST

The real party in interest is Sun Microsystems, Inc.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect or be directly affected by or having a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-41 are pending in the present application. The Examiner has rejected all pending claims. Applicant hereby appeals the rejection of all pending claims.

IV. STATUS OF AMENDMENTS

No amendment has been filed subsequent to the final rejection.

V. SUMMARY OF THE INVENTION

Applicant's invention pertains to a method and apparatus for interconnecting a first device and a second device in a network. The first device and the second device are connected to, in one embodiment, two interfaces, or, in another embodiment, to a plurality of interfaces. (Specification, p. 8, lines 6-22). The interfaces emulate a single high-speed interface. (*Id.*). According to an embodiment of the invention, a first identifier is assigned to the first interface and the second interface at the first device. (Specification, p. 10, line 19 - p. 11, line 10). According to another embodiment of the invention, one of a plurality of interfaces is selected to transmit a packet of data. (Specification, p. 11, lines 13-15;; p. 13, lines 11-17). Which interface is chosen is based on various criteria in various embodiments. (Specification, p. 11, lines 13-21; p. 12, line 13 - p. 13, line 4). The invention may be implemented via a trunking pseudo driver that resides between the internet protocol (IP) layer and a network device driver. (Specification, p. 10, lines 14-16).

VI. ISSUES PRESENTED

The following issue is presented by this Appeal:

Under 35 U.S.C. § 103, are Claims 1-41 obvious over Nair et al. (U.S. Patent No. 5,724,356) in view of Freeman et al. (U.S. Patent No. 5,390,232)?

VII. GROUPING OF THE CLAIMS

Applicant submits that the claims do not stand or fall together.

Accordingly, the claims are to be grouped as follows:

- Group I - Claims 1-5, 19-20, 22-23, and 38
- Group II - Claims 6, 12, 13, 24, 28, 30-31, and 40
- Group III - Claims 7-9, and 25-27
- Group IV - Claims 10, 11, 21, 29, and 33
- Group V - Claims 14-18, and 39
- Group VI - Claims 32, 34, 35-37, and 41

VIII. ARGUMENT

A. Overview of the Invention and Prior Art

1. Overview of the Invention

Applicant's invention pertains to emulating a single high speed interface with a plurality of interfaces. That is, Applicant's invention pertains to a method and apparatus for interconnecting a first device and a second device in a network. The first device and the second device are connected to, in one embodiment, two interfaces, or, in another embodiment, to a plurality of interfaces. (Specification, p. 8, lines 6-22). The interfaces emulate a single high-speed interface. (*Id.*). According to an embodiment of the invention, a first identifier is assigned to the first interface and the second interface at the first device. (Specification, p. 10, line 19 - p. 11, line 10). According to another embodiment of the invention, one of a plurality of interfaces is selected to transmit a packet of data. (Specification, p. 11, lines 13-15; p. 13, lines 11-17). Which interface is chosen is based on various criteria in various embodiments. (Specification, p. 11, lines 13-21; p. 12, line 13 - p. 13, line 4). The invention may be

implemented via a trunking pseudo driver that resides between the internet protocol (IP) layer and a network device driver. (Specification, p. 10, lines 14-16).

2. Overview of Nair

Nair teaches a modem node for a local area network device that provides modem communication to and from the network for both remote computers and other network nodes. (Nair, col. 1, line 66 - col. 2, line 3). The modem node of Nair includes an internal modem and an external modem that provide two paths through which network PCs can gain access to external devices or through which remote PCs can gain access to network resources. (Nair, col. 5, lines 46-52). The Examiner admits that Nair fails to teach emulating a single high speed device. (Office Action, April 2, 2002, p. 2, line 15; Final Office Action, August 28, 2002, p. 2, lines 19-20). Additionally, absent from Nair is any teaching, suggestion or motivation to allow a first interface and a second interface to emulate a single high speed line by assigning an identifier that identifies the connection between a first device and a second device.

3. Overview of Freeman

Freeman teaches an apparatus and a method of testing subscriber-defined call processing programs to determine the program's impact on network performance when the program is executed in a telecommunications network. (Freeman, col. 1, lines 31-38). Absent from Freeman is any teaching, suggestion or motivation to allow a first interface and a second interface to emulate a single high speed line by assigning an identifier that identifies the connection between a first device and a second device.

B. Group I: Rejection of Claims 1-5, 19-20, 22-23 and 38 Under 35 U.S.C. § 103 as being obvious over Nair in view of Freeman

The Examiner rejects Claims 1-41 under 35 U.S.C. § 103(a) as being unpatentable over Nair in view of Freeman. The Examiner bears the burden of supporting a *prima facie* conclusion of obviousness. To establish *prima facie* obviousness the Examiner must show: (1) suggestion or motivation, either in the

references or to one skilled in the art, to modify the reference or combine the teachings; (2) a reasonable expectation of success; and (3) the combination of the prior art must teach or suggest all of the claim limitations. MPEP § 2142 *et seq.*; In re Vaech 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). As will be shown below, the Examiner has failed to meet the burden of showing how the combination of the cited references teaches or suggests all of the limitations recited in Applicant's claims. Applicant, therefore, requests that the obviousness rejections to Claims 1-41 be withdrawn.

Applicant respectfully submits that neither Nair nor Freeman teach or suggest the limitations set forth in Claim 1. Claim 1 recites a method for interconnecting a first device and a second device in a network. The claimed method comprises [1] connecting the first device and the second device to a plurality of interfaces; and [2] emulating a single high speed interface with the plurality of interfaces by assigning to the plurality of interfaces an associated identifier that identifies the connection between the first and second devices.

Nair discloses a LAN Modem comprised of an internal modem and an external modem, each coupled to a telephone line. More specifically, Nair teaches that "[i]nternal modem 300 and external modem 500 provide two paths through which network PCs can gain access to external devices or through which remote PCs can gain access to network resources." (Nair, col. 5. lines 46-52). As such, Nair teaches away from what is claimed by Applicant. That is, allowing a first interface and a second interface to emulate a single high speed line by assigning an identifier that identifies the connection between a first device and a second device cannot be taught by providing two paths to external devices and network resources as stated in Nair. Applicant respectfully submits that two paths (i.e., a first path from an internal modem to a first external device and a second path from an external modem to a second external device) taught by Nair teach away from emulating a single high speed interface with the plurality of interfaces between first and second devices, as claimed in Claim 1. In fact, the Examiner admits that Nair fails to teach emulating a single high speed device. (Office

Action, April 2, 2002, p. 2, line 15; Final Office Action, August 28, 2002, p. 2, lines 19-20).

Freeman discloses a system for testing subscriber-defined call processing programs to determine the program's impact on network performance when the program is executed in a telecommunications network. However there is nothing in Freeman that teaches or suggests emulating a single high speed interface with the plurality of interfaces as claimed in Claim 1.

In the Advisory Action having a mailing date of November 4, 2002, the Examiner equates Claim 1 with Claim 32 and, as such, the Examiner asserts that Freeman teaches a single high speed interface, citing Freeman, col. 4 lines 62-68, col. 6 lines 20-50. As to col. 4, lines 62-68 of Freeman, this portion of Freeman merely states that a switching fabric emulator 407 connected with a remote call-through test unit via a trunk group includes network emulation software which simulates switching and signaling functionality provided by one or more telephone switching systems. (Freeman, col. 4, lines 62-68). More specifically, Freeman states that the switching fabric emulator 407, upon receiving call initiation signals, generates messages to trigger execution of certain commands in an adjunct processor in order to process a call. (Freeman, col. 5, lines 1-8). As to col. 6, lines 42-50 of Freeman, this portion describes some of the functioning of a dynamic testing procedure which tests the functionality of a subscriber designed call processing program. Applicant respectfully submits that these portions of Freeman make no teachings which are pertinent to emulating a single high speed interface with the plurality of interfaces, as claimed in Claim 1.

Since neither Nair nor Freeman teach or suggest emulating a single high speed interface with a plurality of interfaces by assigning to the plurality of interfaces an associated identifier that identifies the connection between first and second devices, the Examiner has failed to make out a prima facie case of obviousness, and the rejection of Claim 1 must fail.

Claims 2-5, 19-20, 22-23 and 38 in Group I recite similar limitations to those recited in Claim 1. As such, the arguments set forth above regarding Claim 1 apply to all of the claims in Group I. The combination of Nair and Freeman neither teaches nor suggests the limitations recited in claims in Group I. As such, the claims in Group I are not rendered obvious by the cited references. All claims in Group I, and all claims depending on Claims in Group I, are, therefore, patentable over the cited references. Applicant, therefore, requests that the rejection of Claims 1-5, 19-20, 22-23 and 38 in Group I be overturned.

C. Group II: Rejection of Claims 6, 12, 13, 24, 28, 30-31, and 40 Under 35 U.S.C. § 103 as being obvious over Nair in view of Freeman

Applicant respectfully submits that neither Nair nor Freeman teach or suggest the limitations set forth in Claim 6. Claim 6 recites a method for creating a multi-interface connection that connects a first device and a second device. The claimed method comprises [1] assigning a first identifier to a first interface and a second interface at the first device; and [2] identifying a path between the first device to the second device with the first identifier.

As to Claim 6, the Examiner asserts, in the Office Action having a mailing date of April 2, 2002, that "Nair-Freeman disclose assigning a first identifier to a first interface and a second interface at the first device; and identifying a path between the first device to the second device with the first identifier as inherent feature of bridge software module driver", citing Nair, col. 19, lines 35-50. This portion of Nair discusses figure 17 and teaches two LAN Modem Nodes that communicate over channels 1730 and 1740. Nair indicates that the channels 1730 and 1740 are used to communicate packet information between different network users on network1 and network2. (Nair, col. 19, lines 36-39). This means that the two channels 1730 and 1740 of Nair provide two paths between the network 1 and network 2, i.e., a first path to enable a first user on one of the networks to communication with a second user on the other network, and a second path to enable a third user on one of the networks to communicate with a fourth user on the other network. Accordingly, the two channels 1730 and

1740 shown in figure 17 of Nair are assigned two different identifiers to identify two independent paths between the network1 and network2. As such, Nair teaches away from what is claimed in Claim 6. That is, assigning a first identifier to a first interface and a second interface at the first device and identifying a path between a first device to a second device with a first identifier cannot be taught by providing two independent paths between the network1 and network2 as disclosed in Nair.

Additionally, in rejecting Claim 6, the Examiner relies on inherency. More specifically, the Examiner is alleging that [1] assigning a first identifier to a first interface and a second interface; and [2] identifying a path between the first device to the second device with the first identifier are inherent features of bridge software module driver of Nair. To rely on inherency the Examiner is not permitted to engage in conjecture or supposition, the allegedly inherent feature must be essential such that the disclosed device could not exist without it. In re Robertson, Fed. Cir. No. 98-1270, Feb. 25, 1999. As noted above, the bridge software module driver of Nair could be implemented and operate without assigning a first identifier to both channels 1730 and 1740 and identifying a path between the two LAN Modem Nodes with the first identifier as claimed by Applicant. Thus, the reliance on inherency is misplaced and does not teach or suggest the claimed features of Applicant's Claim 6. Moreover, the Examiner's reliance on inherency is unsupported by extrinsic evidence and is therefore found solely on his conjecture and supposition, which the Federal Circuit specifically found improper as a basis for claim rejection in In re Robertson.

Applicant submits that Freeman also fails to teach assigning a first identifier to a first interface and a second interface at the first device; and identifying a path between the first device to the second device with the first identifier, as claimed in Claim 6.

Since neither Nair nor Freeman teach or suggest assigning a first identifier to a first interface and a second interface at the first device; and identifying a path

between the first device to the second device with the first identifier, the Examiner has failed to make out a prima facie case of obviousness, and the rejection of Claim 6 must fail.

Claims 12, 13, 24, 28, 30-31 and 40 in Group II recite similar limitations to those recited in Claim 6. As such, the arguments set forth above regarding Claim 6 apply to all of the claims in Group II. The combination of Nair and Freeman neither teaches nor suggests the limitations recited in claims in Group II. As such, the claims in Group II are not rendered obvious by the cited references. All claims in Group II, and all claims depending on claims in Group II, are, therefore, patentable over the cited references. Applicant, therefore, requests that the rejection of Claims 6, 12, 13, 24, 28, 30-31 and 40 in Group II be overturned.

D. Group III: Rejection of Claims 7-9, and 25-27 Under 35 U.S.C. § 103 as being obvious over Nair in view of Freeman

Claims 7-9 and 25-27 in Group III recite assigning a media access control (MAC) address, an internet protocol (IP) address, and a group identifier to identify a path between a first device and a second device. (Claims 7-9, lines 1-3 and Claims 25-27, lines 1-2). As set forth above with regard to Group II, neither Nair nor Freeman teach or suggest assigning a first identifier to both a first interface and a second interface. In addition, neither Nair nor Freeman teach or suggest assigning a media access control (MAC) address, an internet protocol (IP) address, and a group identifier to identify both a first interface and a second interface between a first device and a second device. As such, Claims 7-9 and 25-27 are not rendered obvious by the cited references. Claims 7-9 and 25-27 and all claims depending thereon are, therefore, patentable over the cited references. Applicant, therefore, requests that the rejection of Claims 7-9 and 25-27 in Group III be overturned.

E. Group IV: Rejection of Claims 10, 11, 21, 29, and 33 Under 35 U.S.C. § 103 as being obvious over Nair in view of Freeman

Claims 10, 11, 21, 29 and 33 in Group IV recite allocating data over two interfaces such that data traffic on the first and second interfaces is approximately the same and/or a load balancing unit. (Claim 10, lines 1-4; Claim 21, lines 1-4; Claim 29, lines 1-4; and Claim 33, lines 1-3).

As to Claim 10, the Examiner asserts, in the Office Action having a mailing date of April 2, 2002, that “Nair-Freeman disclose the first device comprises a load balancing unit that allocates data to be transmitted on the first interface and the second interface such that data traffic on the first interface and the second interface is approximately the same as inherent feature of bridge software module driver”, citing Nair, col. 19, lines 35-50. As such, the Examiner is arguing, by inherency, that load balancing is an inherent feature of the bridge software module driver of Nair.

Similarly, with respect to Claims 21 and 29, the Examiner argues, by inherency, that load balancing is an inherent feature of the bridge software module driver of Nair.

To rely on inherency the Examiner is not permitted to engage in conjecture or supposition, the allegedly inherent feature must be essential such that the disclosed device could not exist without it. In re Robertson, Fed. Cir. No. 98-1270, Feb. 25, 1999.

The bridge software module driver of Nair could be implemented and operate without a load balancing as claimed by Applicant. Thus, the reliance on inherency is misplaced and does not teach or suggest the claimed features of Applicant’s Claims 10, 11, 21 and 29. Moreover, the Examiner’s reliance on inherency is unsupported by extrinsic evidence and is therefore found solely on his conjecture and supposition, which the Federal Circuit specifically found improper as a basis for claim rejection in In re Robertson.

Claims 10, 11, 21, 29 and 33 in Group IV recite similar limitations to one another, particularly as to load balancing and allocating data so that data traffic on the first and second interfaces are approximately the same. As such, the arguments set forth above regarding Claims 10, 21 and 29 apply to all of the claims in Group IV. Therefore, the claims in Group D and all claims depending thereon are not rendered obvious by the cited references. Applicant, therefore, requests that the rejection of Claims 10, 11, 21, 29 and 33 in Group IV be overturned.

F. Group V: Rejection of Claims 14-18, and 39 Under 35 U.S.C. § 103 as being obvious over Nair in view of Freeman

Claims 14-18 and 39 in Group V generally recite emulating a single high-speed interface with a plurality of interfaces with either a plurality of interfaces, as in Claims 14-18, or with a two interfaces, as in Claim 39. As set forth above regarding Group I, neither Nair nor Freeman teach or suggest emulating a single high-speed interface with a plurality of interfaces with either a plurality of interfaces or two interfaces. Rather, two paths (i.e., a first path from an internal modem to a first external device and a second path from an external modem to a second external device) taught by Nair teach away from emulating a single high speed interface with the plurality of interfaces connected to a first device. In addition, Freeman also fails to teach emulating a single high speed interface with a plurality of interfaces. As such, the combination of Nair and Freeman neither teaches nor suggests the limitations recited in the claims of Group V. Therefore, Claims 14-18 and 39 in Group V are not rendered obvious by the cited references. Applicant, therefore, requests that the rejection of Claims 14-18 and 39 in Group V be overturned.

G. Group VI: Rejection of Claims 32, 34, 35-37, and 41 Under 35 U.S.C. § 103 as being obvious over Nair in view of Freeman

Applicant respectfully submits that neither Nair nor Freeman teach or suggest the limitations set forth in Claim 32. Claim 32 recites a network device

comprising [1] a first port that connects to a first interface; [2] a second port that connects to a second interface; [3] a trunking pseudo driver, coupled to the first port and the second port, that allows the first interface and second interface to emulate a single high-speed device by assigning to said first and second interfaces an associated identifier that identifies a path between a first device and a second device.

As noted above, Nair discloses a LAN Modem comprised of an internal modem and an external modem, each coupled to a telephone line. More specifically, Nair teaches that “[i]nternal modem 300 and external modem 500 provide two paths through which network PCs can gain access to external devices or through which remote PCs can gain access to network resources.” (Nair, col. 5, lines 46-52). As such, Nair teaches away from what is claimed by Applicant. That is, allowing a first interface and a second interface to emulate a single high speed device by assigning an identifier that identifies the connection between a first device and a second device cannot be taught by providing two paths to external devices and network resources as stated in Nair. Applicant respectfully submits that two paths (i.e., a first path from an internal modem to a first external device and a second path from an external modem to a second external device) taught by Nair teach away from emulating a single high speed interface with the first and second interfaces, as claimed in Claim 32.

In the Advisory Action having a mailing date of November 4, 2002, the Examiner argues that the trunking pseudo driver allowing the first interface and second interface to emulate a single high-speed device is equivalent to the combination of two modems using channel number and specific name to identify the connection between a first and second devices, citing Freeman, col. 4, lines 62-68, col. 6 lines 20-50. Applicant maintains its assertion that these portions of Freeman fails to teach or suggest a trunking pseudo driver that allows the first interface and the second interface to emulate a single high-speed device by assigning to the first and second interfaces an associated identifier that identifies a connection between a first device and a second device. As to col. 6, lines 42-50 of

Freeman, this portion describes some of the functioning of a dynamic testing procedure which tests the functionality of a subscriber designed call processing program. As to col. 4, lines 62-68 of Freeman, this portion merely states that a switching fabric emulator connected with a remote call-through test unit via a trunk group includes network emulation software which simulates signaling and switching systems. Applicant, therefore, asserts that these portions of Freeman referred by the Examiner make no teachings or suggestions which are pertinent to the limitations recited in Claim 32.

Nair also does not teach or suggest allowing a first interface and a second interface to emulate a single high speed device by assigning to the first and second interfaces an associated identifier that identifies a path between a first device and a second device, as claimed in Claim 32. More specifically, Applicant cannot find any teaching or suggestion in Nair of enabling the two channels 1730 and 1740 to emulate a single high speed device. In fact, the Examiner admits that Nair fails to teach emulating a single high speed device. (Office Action, April 2, 2002, p. 2, line 15; Final Office Action, August 28, 2002, p. 2, lines 19-20).

Since neither Nair nor Freeman teach or suggest allowing a first interface and a second interface to emulate a single high speed device by assigning to the first and second interfaces an associated identifier that identifies a path between a first device and a second device, the Examiner has failed to make out a prima facie case of obviousness, and the rejection of Claim 32 must fail.


Claims 34, 35-37 and 41 in Group VI recite similar limitations to those recited in Claim 32. As such, the arguments set forth above regarding Claim 32 apply to all of the claims in Group VI. The combination of Nair and Freeman neither teaches nor suggests the limitations recited in claims in Group VI. As such, the claims in Group VI are not rendered obvious by the cited references. All claims in Group VI are, therefore, patentable over the cited references. Applicant, therefore, requests that the rejection of Claims 32, 34, 35-37 and 41 be overturned.

IX. CONCLUSION AND RELIEF

Based on the foregoing, Applicant requests that the Board overturn the rejection of all pending claims and hold that all of the claims of the present application are allowable.

Respectfully submitted,
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

Dated: November 26, 2002



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Nadya Gordon
November 26, 2002
Date

X. APPENDIX

The claims involved in this Appeal are as follows:

1. A method for interconnecting a first device and a second device in a network, comprising the steps of:
connecting the first device and the second device to a plurality of interfaces;
and
emulating a single high speed interface with the plurality of interfaces by assigning to said plurality of interfaces an associated identifier that identifies the connection between said first and second devices.
2. The method of Claim 1, further comprising the step of selecting one of the plurality of interfaces to send a packet of data.
3. The method of Claim 2, wherein the step of selecting one of the plurality of interfaces to send the packet of data comprises utilizing state information in the first device.
4. The method of Claim 2, wherein the step of selecting one of the plurality of interfaces to send the packet of data comprises utilizing address information in the packet of data.
5. The method of Claim 1, further comprising the step of transmitting a first packet of data on only one of the plurality of interfaces.
6. A method for creating a multi-interface connection that connects a first device and a second device, comprising the steps of:

assigning a first identifier to a first interface and a second interface at the first device; and

identifying a path between the first device to the second device with the first identifier.

7. The method of Claim 6, wherein the step of assigning the first identifier to the first interface and the second interface comprises assigning a media access control (MAC) address.

8. The method of Claim 6, wherein the step of assigning the first identifier to the first interface and the second interface comprises assigning an Internet Protocol (IP) address.

9. The method of Claim 6, wherein the step of assigning the first identifier to the first interface and the second interface comprises assigning a grouping identifier.

10. The method of Claim 6, further comprising the step of allocating data to be transmitted on the first interface and the second interface such that data traffic on the first interface and the second interface is approximately the same.

11. The method of Claim 10, wherein the step of allocating data to be transmitted on the first interface and the second interface, comprises:

checking an output queue of the first interface and an output queue of the second interface;

transmitting the data on the first interface when the output queue of the second interface is fuller than the output queue of the first interface and when previous data sent on the first interface is no longer on the first interface; and

transmitting the data on the second interface when the output queue of the first interface is fuller than the output queue of the second interface and when previous data sent on the second interface is no longer on the second interface.

12. The method of Claim 6, further comprising the step of selecting one of the first interface and the second interface to send a packet of data based on address information in the packet of data.

13. The method of Claim 6, further comprising transmitting a first packet of data on only one of the first interface and the second interface.

14. A method for creating a multi-interface connection, comprising:
connecting a first device to a plurality of interfaces;
emulating a single high-speed interface with the plurality of interfaces.

15. The method of Claim 14, further comprising the step of selecting one of the plurality of interfaces to send a packet of data.

16. The method of Claim 15, wherein the step of selecting one of the plurality of interfaces to send the packet of data comprises utilizing state information in the first device.

17. The method of Claim 15, wherein the step of selecting one of the plurality of interfaces to send the packet of data comprises utilizing address information in the packet of data.

18. The method of Claim 14, further comprising the step of transmitting a first packet of data on only one of the plurality of interfaces.

19. A network, comprising:
a first device;
a second device;
a first interface coupled to the first device and the second device;
a second interface coupled to the first device and the second device,
wherein the first interface and the second interface emulate a single high speed interface by assigning to said plurality of interfaces an associated identifier that identifies the connection between said first and second devices.

20. The network of Claim 19, wherein the first interface and the second interface are homogeneous.

21. The network of Claim 19, wherein the first device comprises a load balancing unit that allocates data to be transmitted on the first interface and the second interface such that data traffic on the first interface and the second interface is approximately the same.

22. The network of Claim 19, wherein the first device is an end-node.

23. The network of Claim 19, wherein the second device is a switch.

24. A network, comprising:

a first device;

a second device;

a first interface coupled to the first device and the second device;

a second interface coupled to the first device and the second device,

wherein the first interface and the second interface are assigned an associated identifier that identifies a path between the first device and the second device.

25. The network of Claim 24, wherein the identifier is an Internet Protocol (IP) address.

26. The network of Claim 24, wherein the identifier is a media access control (MAC) address.

27. The network of Claim 24, wherein the identifier is a grouping identifier.

28. The network of Claim 24, wherein the first interface and the second interface are homogeneous.

29. The network of Claim 24, wherein the first device comprises a load balancing unit that allocates data to be transmitted on the first interface and the second interface such that data traffic on the first interface and the second interface is approximately the same.

30. The network of Claim 24, wherein the first device is an end-node.
31. The network of Claim 24, wherein the second device is a switch.
32. A network device, comprising:
a first port that connects to a first interface;
a second port that connects to a second interface;
a trunking pseudo driver, coupled to the first port and the second port,
that allows the first interface and second interface to emulate a single high-speed device by assigning to said first and second interfaces an associated identifier that identifies a path between a first device and a second device.
33. The network device of Claim 32, wherein the trunking pseudo driver comprises a load balancing unit that selects one of the first and second interfaces to transmit a packet of data.
34. The network device of Claim 32, wherein the trunking pseudo driver comprises an identification unit that assigns the associated identifier to the first interface and the second interface.
35. The network device of Claim 32, wherein the first and second interface are homogeneous.

36. The network device of Claim 32, wherein the network device is an end-node.

37. The network device of Claim 32, wherein the network device is a switch.

38. A method for interconnecting a first device and a second device comprising the steps of:
connecting the first device and the second device to a plurality of interfaces, said first and second devices being disposed within a single local area network;
and
emulating a single high speed interface with the plurality of interfaces.

39. A local area network, comprising:
a first device;
a second device;
a first interface coupled to the first device and the second device;
a second interface coupled to the first device and the second device,
wherein the first interface and the second interface emulate a single high speed interface.

40. A local area network, comprising:
a first device;
a second device ;
a first interface coupled to the first device and the second device;
a second interface coupled to the first device and the second device,
wherein the first interface and the second interface are assigned an identifier that identifies a path between the first device and the second device.

41. A network device, comprising:
a first port that connects to a first interface;
a second port connects to a second interface;
a trunking pseudo driver, coupled to the first port and the second port, that
allows the first interface and second interface to emulate a single high speed
device for operating in a local area network environment.